

**COPY**

**COMBINED DECLARATION AND POWER OF ATTORNEY  
FOR UTILITY PATENT APPLICATION**

Attorney's Docket No.  
002076-004

As a below-named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name;

I BELIEVE I AM THE ORIGINAL, FIRST AND SOLE INVENTOR (if only one name is listed below) OR AN ORIGINAL, FIRST AND JOINT INVENTOR (if more than one name is listed below) OF THE SUBJECT MATTER WHICH IS CLAIMED AND FOR WHICH A PATENT IS SOUGHT ON THE INVENTION ENTITLED:

**PROLONGED CULTURING OF AVIAN (CHICKEN) PRIMORDIAL GERM CELLS (PGCs) USING SPECIFIC**

**GROWTH FACTORS, USE THEREOF TO PRODUCE CHIMERIC AVIANS (CHICKENS)**

the specification of which

(check one)

is attached hereto;

was filed on August 4, 1997 as

Application No. 08/905,773

and was amended on \_\_\_\_\_;  
(if applicable)

I HAVE REVIEWED AND UNDERSTAND THE CONTENTS OF THE ABOVE-IDENTIFIED SPECIFICATION, INCLUDING THE CLAIMS, AS AMENDED BY ANY AMENDMENT REFERRED TO ABOVE;

I ACKNOWLEDGE THE DUTY TO DISCLOSE TO THE OFFICE ALL INFORMATION KNOWN TO ME TO BE MATERIAL TO PATENTABILITY AS DEFINED IN TITLE 37, CODE OF FEDERAL REGULATIONS, Sec. 1.56 (as amended effective March 16, 1992);

I do not know and do not believe the said invention was ever known or used in the United States of America before my or our invention thereof, or patented or described in any printed publication in any country before my or our invention thereof or more than one year prior to said application; that said invention was not in public use or on sale in the United States of America more than one year prior to said application; that said invention has not been patented or made the subject of an inventor's certificate issued before the date of said application in any country foreign to the United States of America on any application filed by me or my legal representatives or assigns more than twelve months prior to said application;

I hereby claim foreign priority benefits under Title 35, United States Code Sec. 119 and/or Sec. 365 of any foreign application(s) for patent or inventor's certificate as indicated below and have also identified below any foreign application for patent or inventor's certificate on this invention having a filing date before that of the application(s) on which priority is claimed:

<b>COMBINED DECLARATION AND POWER OF ATTORNEY</b>		Attorney's Docket No. 002076-004
COUNTRY/INTERNATIONAL	APPLICATION NUMBER	DATE OF FILING (day, month, year)
		YES_ NO_
		YES_ NO_

I hereby appoint the following attorneys and agent(s) to prosecute said application and to transact all business in the Patent and Trademark Office connected therewith and to file, prosecute and to transact all business in connection with international applications directed to said invention:

William L. Mathis	17,337	Samuel C. Miller, III	27,360	Robert M. Schulman	31,196
Peter H. Smolka	15,913	Ralph L. Freeland, Jr.	16,110	William C. Rowland	30,888
Robert S. Swecker	19,885	Robert G. Mukai	28,531	T. Gene Dillahunt	25,423
Platon N. Mandros	22,124	George A. Hovanec, Jr.	28,223	Patrick C. Keane	32,858
Benton S. Duffett, Jr.	22,030	James A. LaBarre	28,632	Bruce J. Boggs, Jr.	32,344
Joseph R. Magnone	24,239	E. Joseph Gess	28,510	William H. Benz	25,952
Norman H. Stepno	22,716	R. Danny Huntington	27,903	Peter K. Skiff	31,917
Ronald L. Grudziecki	24,970	Eric H. Weisblatt	30,505	Richard J. McGrath	29,195
Frederick G. Michaud, Jr.	26,003	James W. Peterson	26,057	Matthew L. Schneider	32,814
Alan E. Kopecki	25,813	Teresa Stanek Rea	30,427	Michael G. Savage	32,596
Regis E. Slutter	26,999	Robert E. Krebs	25,885	Gerald F. Swiss	30,113

and: Robin L. Teskin, Registration No. 35,030

Address all correspondence to:

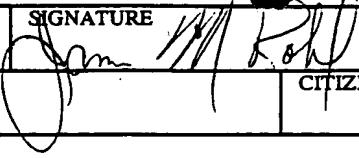
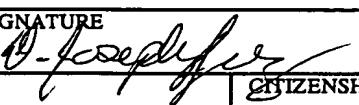
**Robin L. Teskin**  
BURNS, DOANE, SWECKER & MATHIS, L.L.P.  
P.O. Box 1404  
Alexandria, Virginia 22313-1404

Address all telephone calls to: Robin L. Teskin

at (703) 836-6620.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

FULL NAME OF SOLE OR FIRST INVENTOR F. Abel Ponce de LEÓN	SIGNATURE	DATE
RESIDENCE St. Paul, Minnesota		CITIZENSHIP U.S.A.
POST OFFICE ADDRESS 2180 Folwell Avenue, St. Paul, MN 55108		
FULL NAME OF SECOND JOINT INVENTOR, IF ANY Catherine BLACKWELL	SIGNATURE	DATE
RESIDENCE Warren, Massachusetts		CITIZENSHIP U.S.A.
POST OFFICE ADDRESS 285 Cuter Road, Warren, MA 01083		
FULL NAME OF THIRD JOINT INVENTOR, IF ANY Xiu Ying GAO	SIGNATURE	DATE
RESIDENCE S. Deerfield, Massachusetts		CITIZENSHIP China
POST OFFICE ADDRESS 14 Ward Avenue, S. Deerfield, MA 01373		

FULL NAME OF FOURTH JOINT INVENTOR, IF ANY James M. ROBL RESIDENCE Belchertown, Massachusetts POST OFFICE ADDRESS 196 Old Enfield Road, Belchertown, MA 01007		SIGNATURE  CITIZENSHIP USA	DATE 9-29-97
FULL NAME OF FIFTH JOINT INVENTOR, IF ANY Steven L. STICE RESIDENCE Belchertown, Massachusetts POST OFFICE ADDRESS 468 Amherst Road, Belchertown, MA 01007		SIGNATURE  CITIZENSHIP USA	DATE 9-29-97
FULL NAME OF SIXTH JOINT INVENTOR, IF ANY D. Joseph JERRY RESIDENCE Shutesbury, Massachusetts POST OFFICE ADDRESS W. Pelham Road, Shutesbury, MA 01072		SIGNATURE  CITIZENSHIP USA	DATE 9-29-97
FULL NAME OF SEVENTH JOINT INVENTOR, IF ANY		SIGNATURE	DATE
RESIDENCE		CITIZENSHIP	
POST OFFICE ADDRESS			
FULL NAME OF EIGHTH JOINT INVENTOR, IF ANY		SIGNATURE	DATE
RESIDENCE		CITIZENSHIP	
POST OFFICE ADDRESS			
FULL NAME OF NINTH JOINT INVENTOR, IF ANY		SIGNATURE	DATE
RESIDENCE		CITIZENSHIP	
POST OFFICE ADDRESS			
FULL NAME OF TENTH JOINT INVENTOR, IF ANY		SIGNATURE	DATE
RESIDENCE		CITIZENSHIP	
POST OFFICE ADDRESS			
FULL NAME OF ELEVENTH JOINT INVENTOR, IF ANY		SIGNATURE	DATE
RESIDENCE		CITIZENSHIP	
POST OFFICE ADDRESS			
FULL NAME OF TWELFTH JOINT INVENTOR, IF ANY		SIGNATURE	DATE
RESIDENCE		CITIZENSHIP	
POST OFFICE ADDRESS			

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002076-004

Attorney's Docket No.

## **ASSIGNMENT (JOINT)**

THIS ASSIGNMENT, by F. ABEL PONCE DE LEÓN; CATHERINE BLACKWELL; XIU YING GAO; JAMES M. ROBL; STEVEN L. STICE, and D. JOSEPH JERRY, residing at ST. PAUL, MINNESOTA; WARREN, MASSACHUSETTS; S. DEERFIELD, MASSACHUSETTS; BELCHERTOWN, MASSACHUSETTS; BELCHERTOWN, MASSACHUSETTS and SHUTESBURY, MASSACHUSETTS (hereinafter referred to as "the Assignors"), respectively, witnesseth:

WHEREAS, the Assignors have invented certain new and useful improvements in PROLONGED CULTURING OF AVIAN (CHICKEN) PRIMORDIAL GERM CELLS (PGCs) USING SPECIFIC GROWTH FACTORS, USE THEREOF TO PRODUCE CHIMERIC AVIANS (CHICKENS), set forth in an application for Letters Patent of the United States, [ ] which is a provisional application to be filed herewith; [ ] which is a non-provisional application having an oath or declaration executed on even date herewith prior to filing of application; [X] bearing Application No. 08/\_\_\_\_\_, and filed on AUGUST 4, 1997; and

WHEREAS, UNIVERSITY OF MASSACHUSETTS, A PUBLIC INSTITUTION OF HIGHER EDUCATION OF THE COMMONWEALTH OF MASSACHUSETTS, AS REPRESENTED BY ITS AMHERST CAMPUS, and having its principal place of business at OFFICE OF VICE CHANCELLOR FOR RESEARCH AT AMHERST, AMHERST, MASSACHUSETTS 01002 (hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignors have sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said applications, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefor and thereon, and in and to any and all applications claiming priority to said applications, divisions, continuations, and continuations-in-part of said applications, and reissues and extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and behalf and the use and behalf of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignors had this sale and assignment not been made;

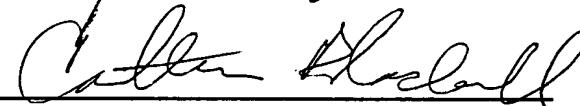
AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignors are the sole and lawful owners of the entire right, title, and interest in and to the inventions set forth in said applications and said applications, including provisional applications, above-mentioned, and that the same are unencumbered, and that the Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

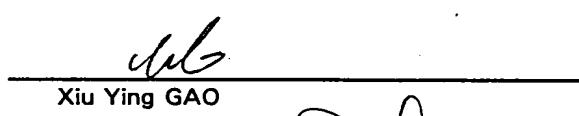
AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns that the Assignors will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent or Patents for said inventions, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns;

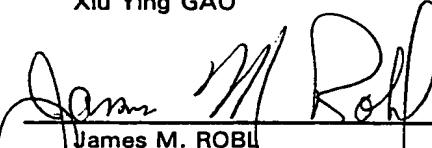
AND the Assignors hereby authorize and request the attorneys of BURNS, DOANE, SWECKER & MATHIS, L.L.P. of Alexandria, Virginia, to insert in the spaces provided above the filing date, application number, and attorney docket number of said application when known.

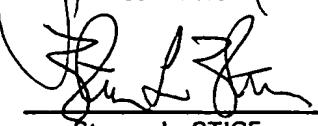
AND the Assignors hereby request the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignee as the Assignee of said inventions, the Letters Patent to be issued for the sole use and behalf of the Assignee, its successors, legal representatives, and assigns.

Date 9-5-97 Signature of Assignor   
F. Abel Ponce de LEÓN

Date 9-29-97 Signature of Assignor   
Catherine BLACKWELL

Date 10-08-97 Signature of Assignor   
Xiu Ying GAO

Date 9-29-97 Signature of Assignor   
James M. ROBL

Date 9-29-97 Signature of Assignor   
Steven L. STICE

Date 9-29-97 Signature of Assignor   
D. J. seph JERRY